

### **REMARKS/ARGUMENTS**

The office action of September 8, 2006 has been carefully reviewed and these remarks are responsive thereto. Reconsideration and allowance of the instant application are respectfully requested. Claims 1-53 remain in this application.

Claims 1-53 stand rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. The independent claims as well as others have been amended in an effort to clarify that the invention produces a useful, tangible and concrete result. For example, claims 1 and 43 are directed to a system for providing a computer simulation system model and claims 16, 22, 47 and 49 provide a computer simulation system model. Applicants submit that all the claims produce a useful, tangible and concrete result. In the event that any issues remain regarding section, the Examiner is requested to contact the undersigned to address the matter efficiently and expeditiously.

Claims 1, 3-6, 9-12, 14, 16, 18-22, 24-26, 29-32, 34-39, 41, 43, 45, 47, 49, 51 and 53 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Dalpasso<sup>1</sup> et al., "Virtual Simulation IP-based Designs," ACM, 1999, pp. 50-55 (hereinafter "Benini"). Claims 2, 8, 17, 23, 27, 33, 44, 48 and 50 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Benini. Claims 7 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Benini in view of Hauck et al., "Data Security for Web-based CAD," DAC 98, June 15-19, 1998, San Francisco, CA, pp. 788-793 (hereinafter "Hauck"). Claims 13, 15, 40, 42, 46 and 52 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Benini. Applicants respectfully traverse this rejection.

#### **Rejections based on 35 U.S.C. § 102**

The action contends that Benini discloses all the elements of the independent claims.

Benini relates to a system for supporting the remote instantiation of intellectual property ("IP") component blocks. The Benini system includes one or more "IP providers", each of which makes available, via a server, simulation models of various components. In order to protect the valuable IP that may be embodied in the simulation models, proprietary details of the

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<sup>1</sup> The Office Action misidentifies the reference as "Benini" rather than "Dalpasso." For consistency purposes with the Office Action, Applicants will refer to this reference as "Benini" in this paper.

components are not available to end users of this system, but instead may be stored and executed on the server, and never transferred to the user's computer. As a result, the user is also unable to edit any aspect of the internal implementation of each IP component. As such, Benini is concerned with the remote provisioning of individual third-party IP components, which are intended for deployment in larger scale user simulations, and which therefore include input and/or output ports for connection to other components in a simulation model.

Independent claim 1 is directed to a system for providing a computer simulation *system* model. In contrast, Benini neither teaches nor suggests providing such system models. Instead Benini simply encompasses systems providing only component or subsystem models, such as the distributed simulation system of Benini.

Also, claim 1 calls for, among other features, computer-implemented design automation means for enabling a designer to create a *runnable simulation system model* including interconnected component and/or subsystem models and computer-implemented simulation content file creation means for creating a simulation content file that includes information describing the *simulation system model*. In Benini the IP providers do not provide runnable simulation system models, but instead provide individual component models for use by the IP user (designer). While the IP user of Benini is provided with the JavaCAD application, which may be used to define simulation system models, the IP user is not a distributor of such models, and Benini certainly does not teach or suggest enabling a designer to create a runnable simulation system model. In accordance with Benini at p. 51, col. 1, lines 9-11, the target end user is a designer (the "IP user"), who utilizes a fully-functional simulation software environment (*e.g.*, the JavaCAD backplane client) which enables the IP user to specify a complete design which contains IP components from one or more providers.

To show the content file creation means recited in claim 1, the action alleges that JavaCAD as described in Benini "can be used by the IP provider to represent the functionality of the intellectual property block." However, representing the functionality of a block (*i.e.* component) as described in Benini neither teaches nor suggests content file creation means for creating a simulation content file that includes information describing the simulation *system* model as claimed.

Claim 1 further calls for a computer implemented simulation player including “means for reading the simulation content file; graphical user interface means for displaying to an end user a schematic diagram of the simulation system model created by the designer; and means for running the simulation system model using the information in the simulation content file.” Notably, Benini lacks a teach or suggestion of graphical user interface means for displaying to an end user a schematic diagram of the simulation system model *created by the designer*. In Benini, there is no recognition of a separate end user and designer. Furthermore, according to claim 1, “the graphical user interface means and/or the means for running the system model are adapted *to prohibit the end user from modifying the simulation model* by adding or removing any of the component models, subsystem models or interconnections of the simulation system model”. In stark contrast, Benini provides only one type of design automation environment, exemplified by the JavaCAD backplane, which *does not prohibit* the IP user from modifying a simulation system model by adding or removing component models, subsystem models or interconnections therebetween. Indeed, it is intrinsic to the distributed CAD environment of Benini that the IP user is free to construct simulation system models from any combination of available component models. Benini is concerned with preventing the valuable IP embodied in individual component models from access by IP users, (e.g., system designers), whereas the present invention is not concerned with the manner in which the IP in individual component models may be protected. Rather, aspects of the claim 1 invention enable designers (such as the IP users of Benini) to distribute complete simulation system models, for example in the form of demonstrations or application examples, to end users, in a manner which does not require the end users to have access to a corresponding fully-featured CAD tool, and which also enables the designer to limit the end user’s ability to modify the simulation system model.

For at least the reasons set forth above, applicants submit that Benini does not teach, disclose or otherwise suggest the claim 1 combination of features, and neither anticipates nor renders obvious the claimed invention. Claims 3-6, 9-12 and 14, which ultimately depend from claim 1, are patentably distinct from Benini for the at least same reasons as claim 1 and further in view of the additional advantageous features recited therein.

Independent claim 16 defines a method of providing a computer simulation system model corresponding with the system of claim 1, and independent claim 22 defines a tangible computer-readable medium, having computer-readable instructions stored thereon, for performing a method corresponding substantially to the method of claim 16. For substantially the same reasons set forth above with respect to claim 1, claims 16 and 22 are patentably distinct from Benini. Claims 18-21, which directly or indirectly from claim 16, and claims 24-26 and 29-31, which ultimately depend from claim 22, are patentably distinct from Benini for the same reasons as claims 16 and 22, respectively, and further in view of the additional advantageous features recited therein.

Claim 32 calls for a tangible computer-readable medium having computer readable instructions stored thereon for performing a method corresponding substantially with the operation of the computer-implemented simulation player recited in claim 1. For substantially the same reasons set forth above with respect to claim 1, claim 32 is patentably distinct from Benini. Claims 34-39 and 41, which depend directly or indirectly from claim 32, are patentably distinguishable from Benini for the same reasons as claim 32, and further in view of the additional features recited therein.

Independent claims 43, 47, 49, and 53, corresponds in many respects with previously discussed independent claims 1, 16, 22, and 32, respectively, with the additional feature that the computer simulation system model is a model of “optical, optoelectronic or electronic components or systems.” Accordingly, Applicants submit that these claims are patentably distinct from Benini for at least the same reasons as set forth above with regard to claims 1, 16, 22 and 32. Claim 45, which depends from claim 43 and claim 51, which depends from claim 49, are patentably distinct from Benini for the same reasons as their base claim, and further in view of the additional advantageous features recited therein.

Rejections based on 35 U.S.C. § 103

The action rejects claims 2, 8, 13, 15, 17, 23, 27, 33, 40, 42, 44, 46, 48, 50 and 52 as being obvious over Benini. Each of these claims depends, either directly or indirectly, from one of the independent claims 1, 16, 22, 32, 43 and 49, and is therefore patentably distinct from Benini for at least the reasons set forth above with respect to their corresponding base claim.

Claims 7 and 28 stand rejected over Benini in view of Hauck. Claim 7 depends on claim 1 and claim 28 depends on claim 22. Hauck however fails to overcome the deficiencies of Benini identified with respect to claims 1 and 28. As such, notwithstanding the propriety of combining Benini and Hauck, the combination does not result in the inventions of claims 22 and 28. For at least this reason, claims 22 and 28 are patentably distinct from the combination of Benini and Hauck.

### **CONCLUSION**

It is believed that no fee is required for this submission. If any fees are required or if an overpayment is made, the Commissioner is authorized to debit or credit our Deposit Account No. 19-0733, accordingly.

All rejections having been addressed, applicants respectfully submit that the instant application is in condition for allowance, and respectfully solicit prompt notification of the same.

Respectfully submitted,

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